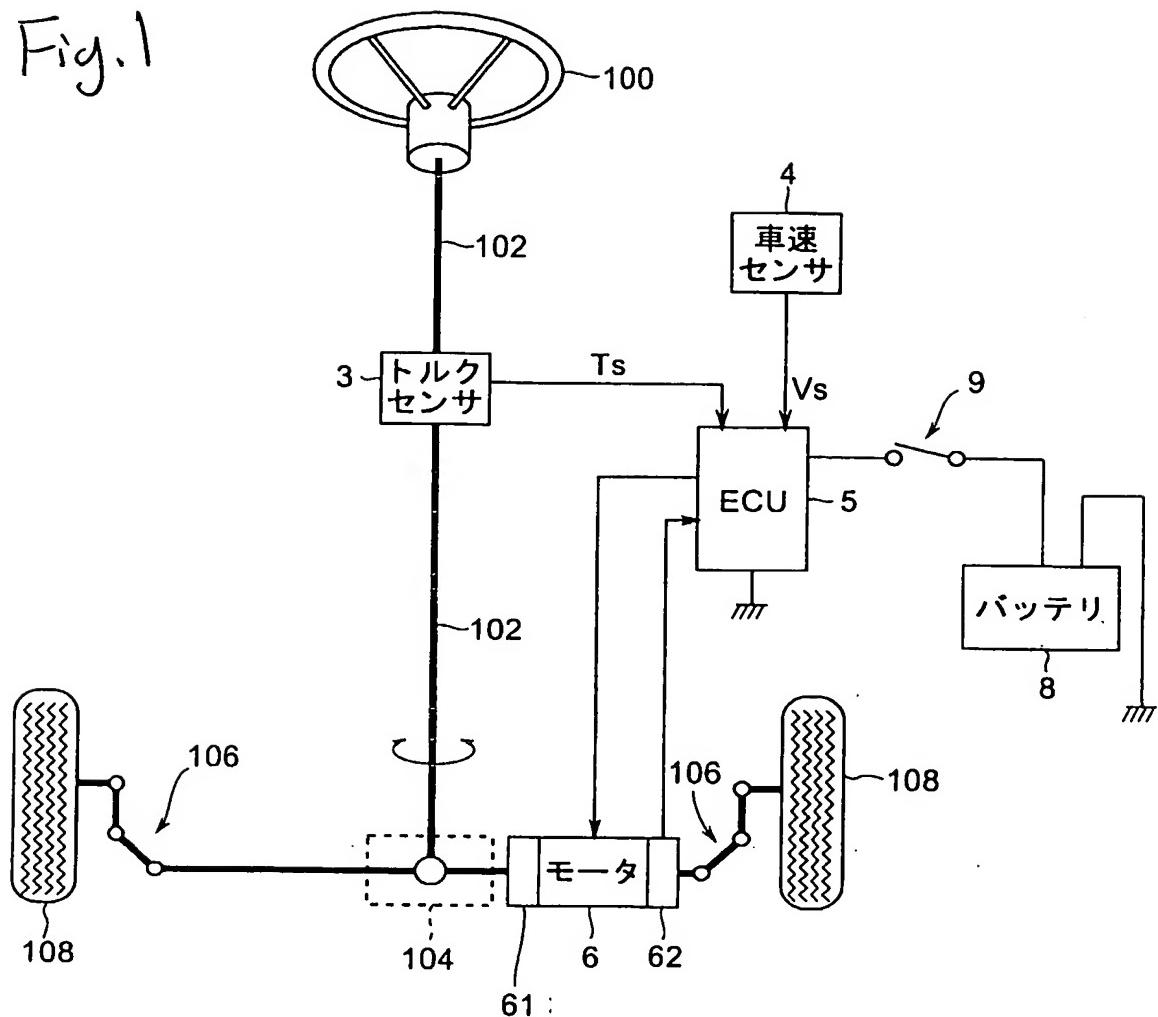


Fig.1



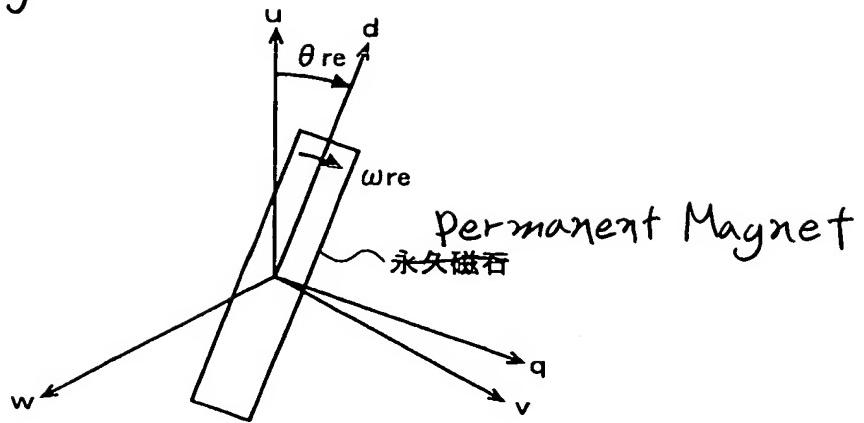
3: TORQUE SENSOR

4: VEHICLE SPEED SENSOR

6: MOTOR

8: BATTERY

Fig.2



152: MOTOR DRIVING CIRCUIT

154: V-PHASE CIRCUIT CURRENT DETECTOR

116: URGENCE CORRECTIVE DECISION

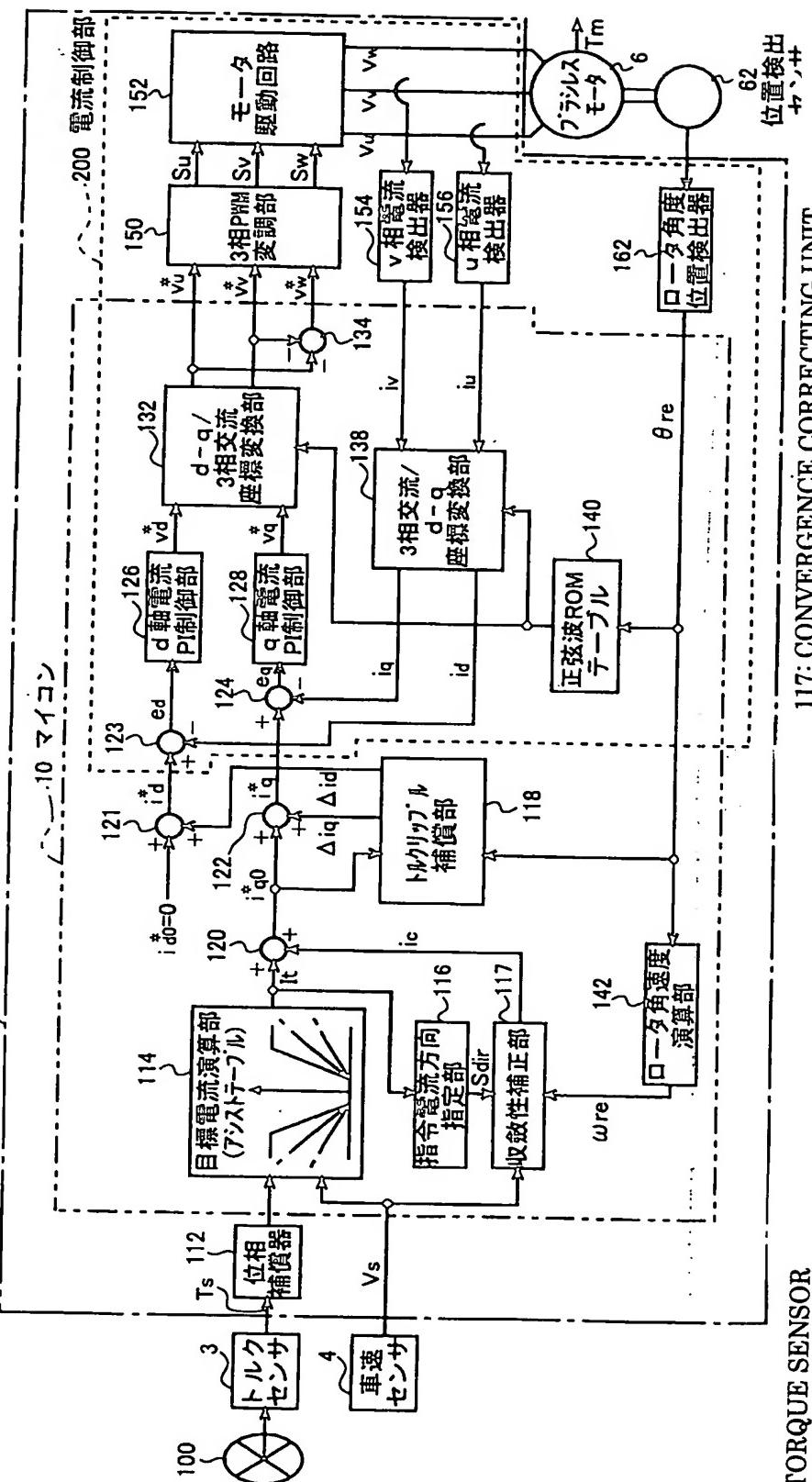
136. U-PHASE CURRENT DETECTOR

162: ROTOR ANGLE POSITION D

200: CURRENT CONTROL UNIT

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3: TORQUE SENSOR

4: VEHICLE SPEED SENSOR

6: BRUSHLESS MOTOR

10: MICROCOMPUTER

62: POSITION DETECTING SHEET

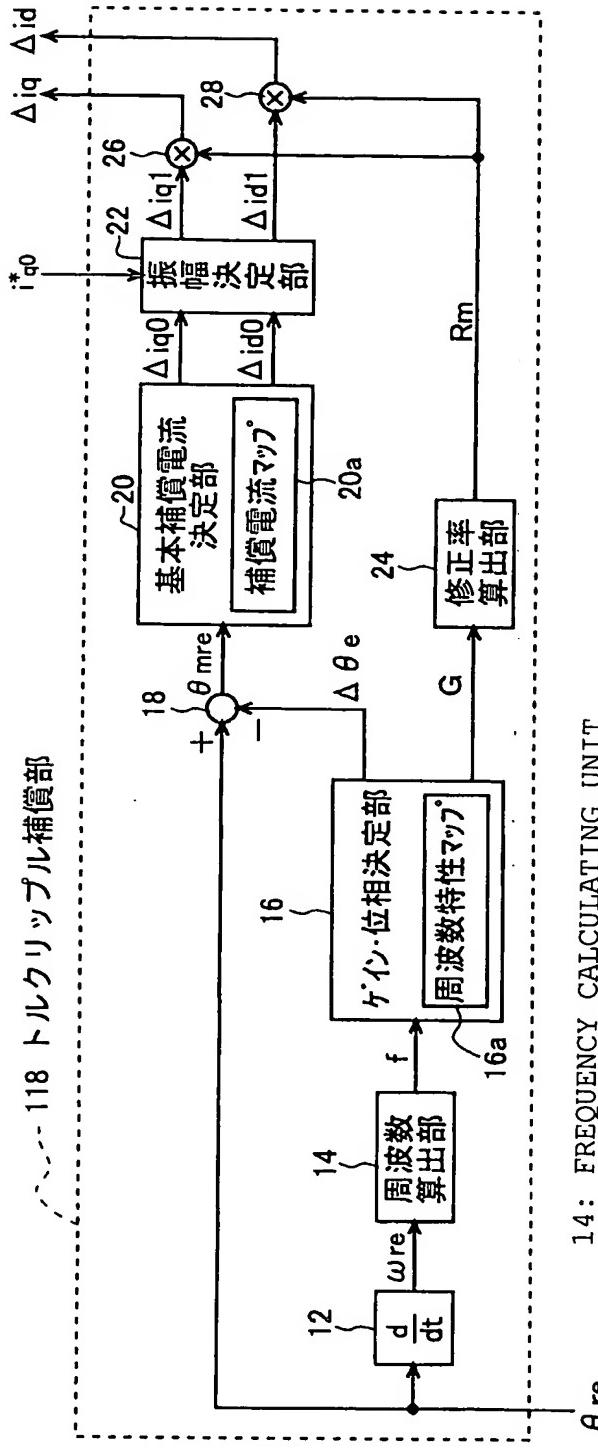
112: PHASE COMPENSATOR

11.4: TARGET CURRENT CALCULATING UNIT (ASSIST TABLE)

142: ROTOR ANGULAR VELOCITY CALCULATING UNIT

150: 3-PHASE PWM MODULATING UNIT

Fig. 4



14: FREQUENCY CALCULATING UNIT

16: GAIN/PHASE DETERMINING UNIT

16a: FREQUENCY CHARACTERISTIC MAP

20: BASIC COMPENSATION CURRENT DETERMINING UNIT

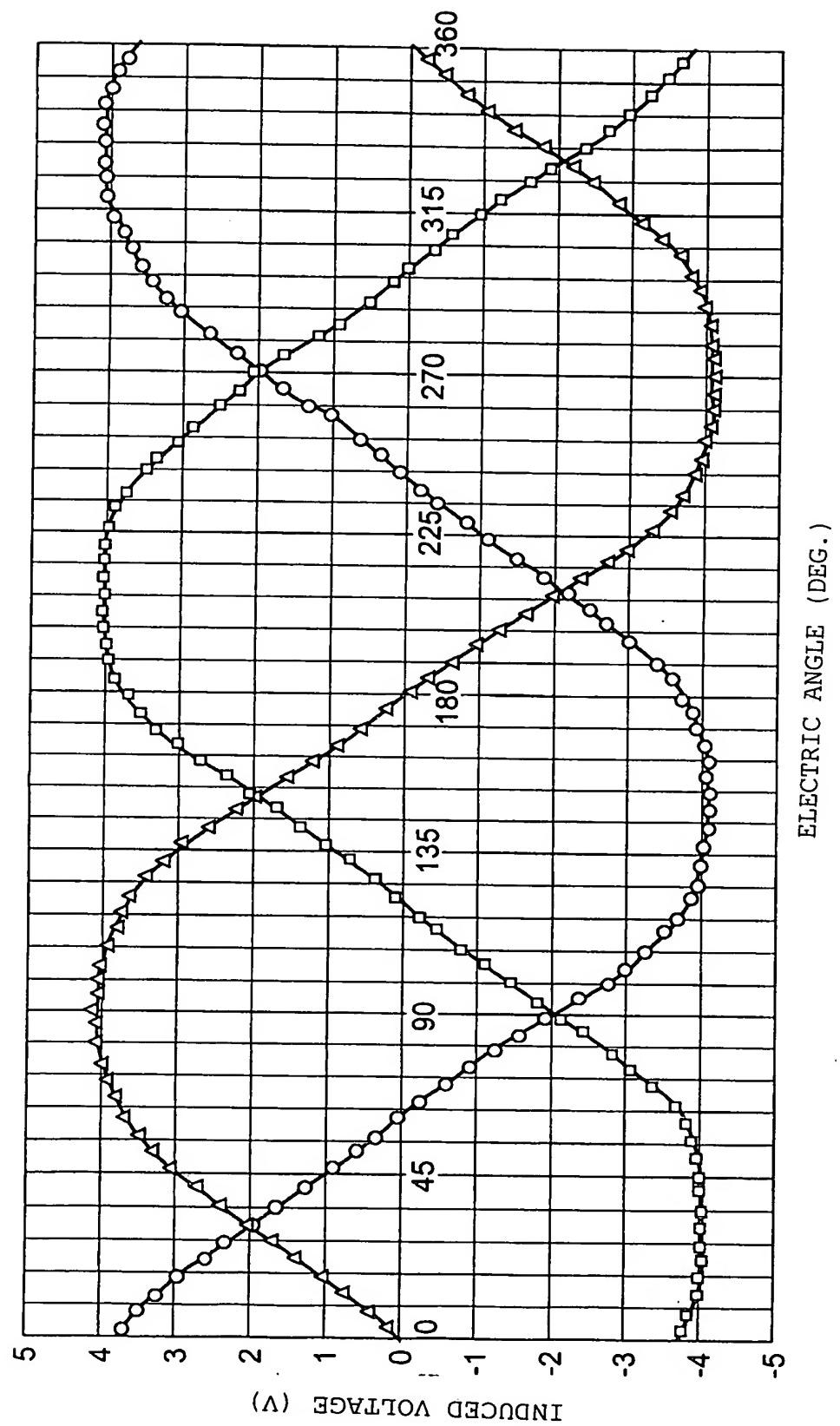
20a: COMPENSATION CURRENT MAP

22: AMPLITUDE DETERMINING UNIT

24: CORRECTION FACTOR CALCULATING UNIT

118: TORQUE RIPPLE COMPENSATING UNIT

Fig.5



△ : U-PHASE_INDUCED VOLTAGE
□ : V-PHASE_INDUCED VOLTAGE
○ : W-PHASE_INDUCED VOLTAGE

Fig.6

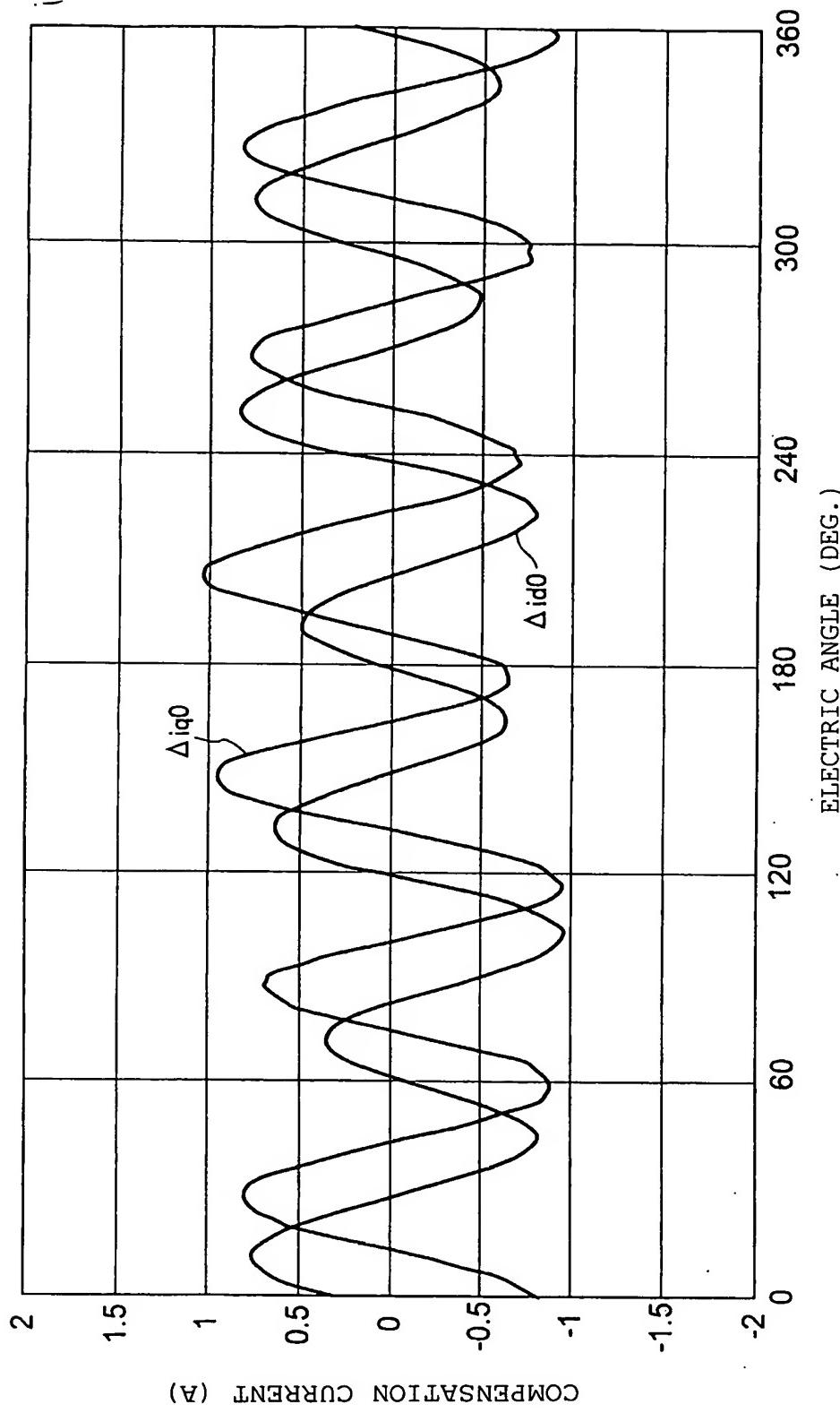


Fig. 1

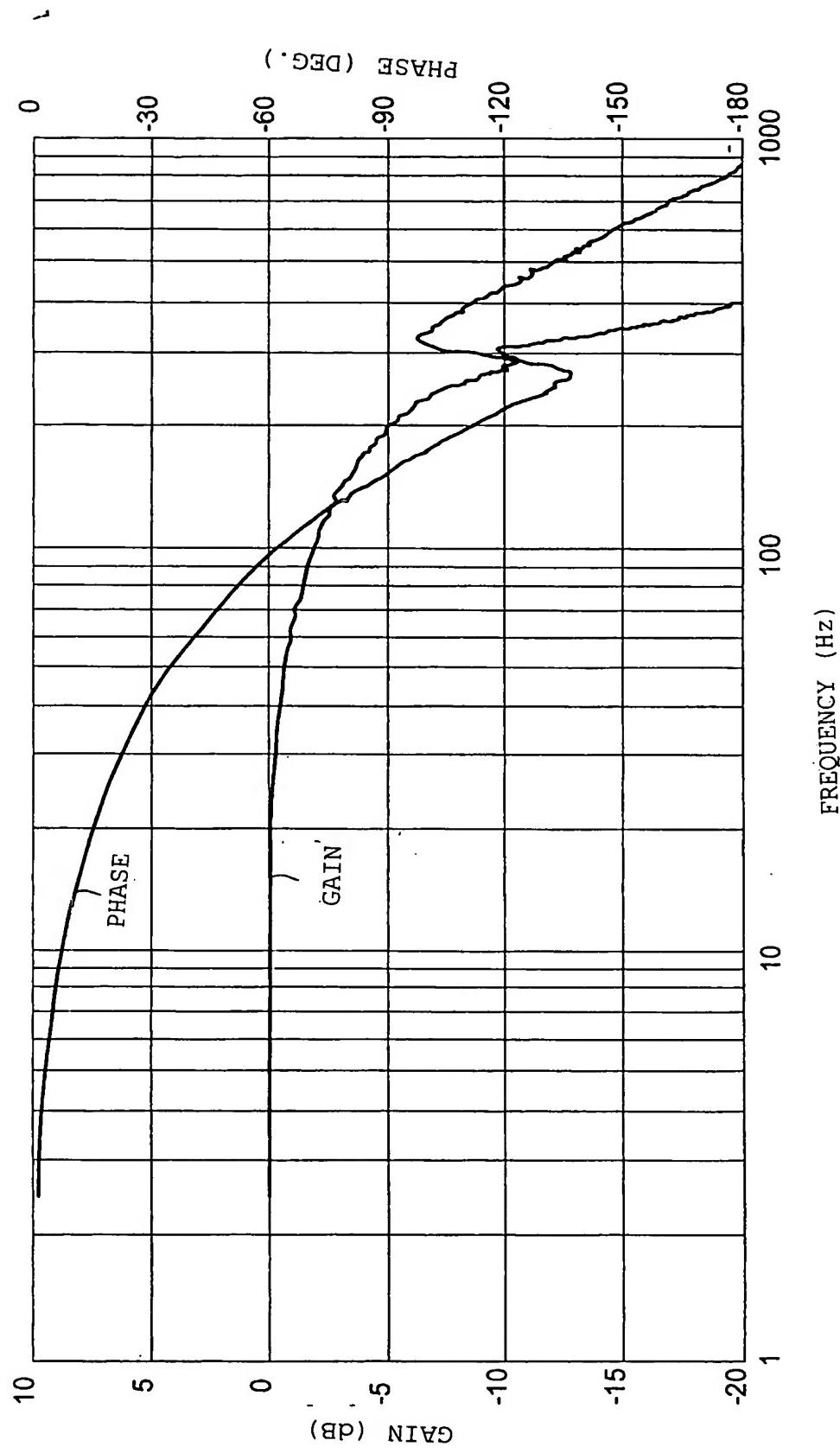
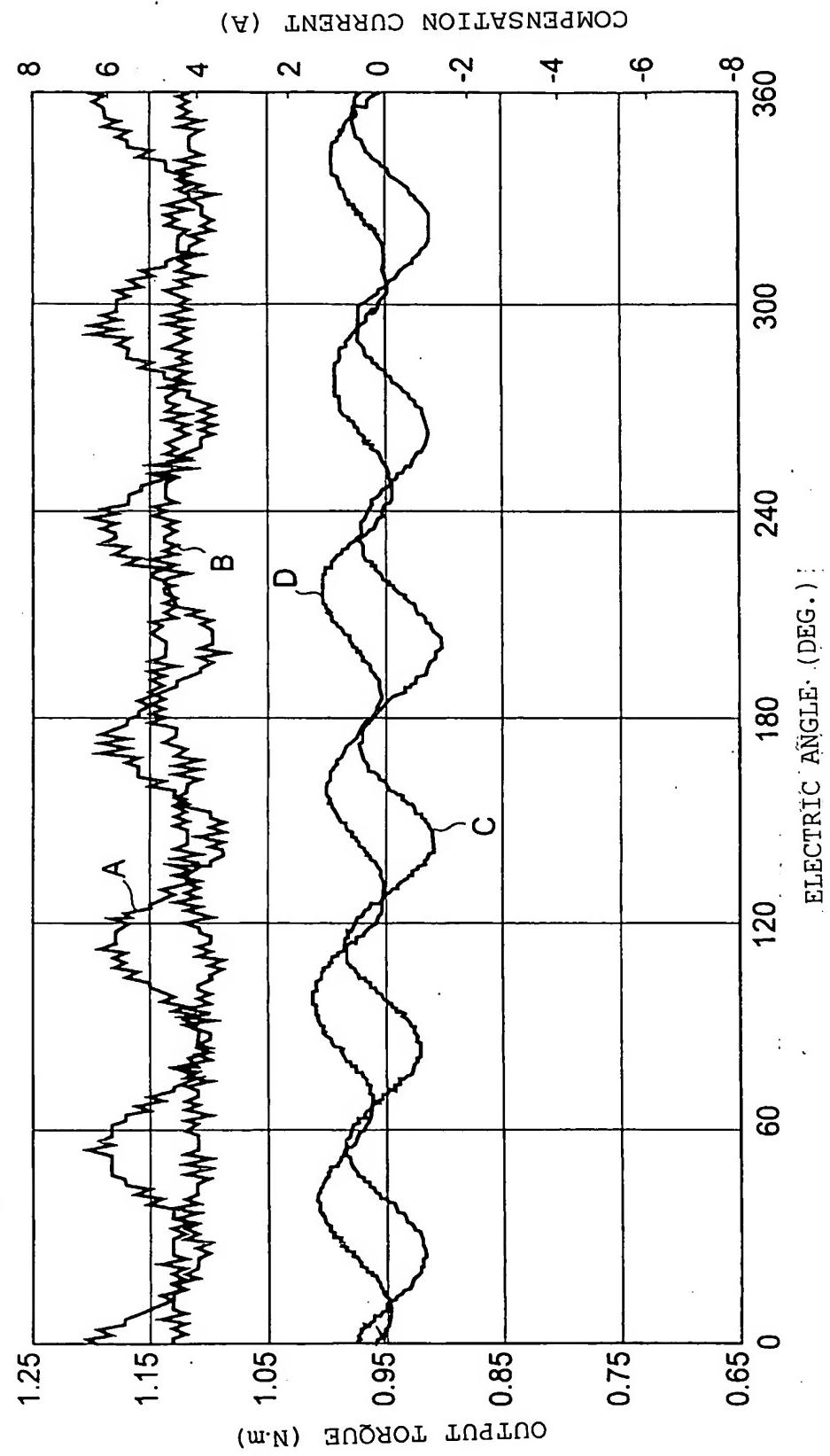


Fig.8



A: OUTPUT TORQUE (WITHOUT COMPENSATION; SET VALUE: +1 N.m)

B: OUTPUT TORQUE (WITH COMPENSATION; SET VALUE: +1 N.m)

C: q-AXIS COMPENSATION CURRENT

D: d-AXIS COMPENSATION CURRENT

Fig. 9

